

### REMARKS

Below, the applicant's comments are preceded by related remarks of the examiner set forth in small bold font.

**1. The disclosure is objected to because of the following informalities: The blank on line 18, page 2 has to be filled. Appropriate correction is required.**

The applicant amended the specification to remove the blank line on page 18 in the reply filed on November 15, 2004.

**2. The description of drawings in the specification is objected to because of the following reason: The specification states that the figure 2 shows a node ID discovery process. The figure 2 does not show the node ID discovery process, it is a commonly known computer architecture as stated in specification page 1, last paragraph.**

The applicant has amended the specification.

#### *Drawings 3*

**3. Figure 2 should be designated by a legend such as --Prior Art--because only that which is old is illustrated. See MPEP§608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.**

The applicant disagrees. Figure 2 includes I/O hub controller 55 which is new. Additional details of I/O hub controller are shown in Fig. 3.

**5. Claims 1-5, 9-10, 17, 20, and 23-26 are rejected under 35 U. S. C. 102(b) as being anticipated by Cutler, Jr. et al. (U. S. Patent No. 5,572,512).**

Referring to claim 1: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (CSC) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed second node device. The node information stored in the routing table is the claimed node ID information for a third node device. The node receiving the SCS's

routing table is the claimed first node.

The SCS's communication network address is the claimed determining node ID information of the second node device. The communication protocol between the routing table receiving node and the CSC is a protocol between the first node and the second node. Since the first node/receiving node has to recognize the 2<sup>nd</sup> node/CSC in order to establish the connection and to receive the routing table, the first node/receiving node's means to recognize 2<sup>nd</sup> node/CSC is the claimed storing the second node device's node ID information on the first node device's storage device. The routing table includes other nodes' ID information; when the first node retrieves the routing table from the second node, it retrieves the node information for a third node. Both of Cutler's first node and third node are connecting to the SCS, which is the second node. Hence, claim is anticipated by Cutler.

In response to the applicant's comments the examiner further stated:

10. In response to Applicant's argument that Culter's use of a centralized system control station in communication with the nodes to update the routing tables is substantially different from the claimed invention (Remark, bottom of the page 10): As Applicant pointed out, Culter discloses a System Control Station (SCS) providing each node the updated routing table. The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed second node device. The node information stored in the routing table is the claimed node ID information for a third node device. The node receiving the SCS's routing table is the claimed first node

Claim 1 as amended includes "determining node ID information identifying a second node device of a multi-node computer system" and "storing the node ID information identifying the second node device on a storage device located on a first node device." In Cutler's system, the satellites 12 have routing tables which are updated by a System Control Station 24 (col. 3, lines 42-44). The examiner equates Cutler's System Control Station (SCS) to the second node device recited in the applicant's claim 1. However, the SCS cannot be equivalent to the applicant's second node device. As described above, Cutler sends information identifying a new satellite from the SCS to the satellites neighboring the new satellite. (See e.g., Fig. 2). Since, satellite receives and stores information identifying other satellites in the network and not identifying the SCS, Cutler's SCS cannot be equivalent to the applicant's second node. Thus, Cutler fails to describe or suggest "storing the node ID information identifying the second node device on a storage device located on a first node device" as recited in the applicant's claim 1.

Referring to claim 3...

Referring to claim 4...

Referring to claim 5...

Claims 3-5 are patentable for at least the same reasons as claim 1.

**Referring to claim 9: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed first storage device, and the SCS is equivalent to the claimed first node device. The node information stored in the routing table is the claimed node ID information. The node receiving the SCS's routing table is the claimed second node. The second node's copy of the routing table is the claimed storing the node ID information on a storage device located on a second node device. Hence, claim is anticipated by Cutler.**

As amended, claim 9 includes retrieving node ID information identifying a first node device of a multi-node computer system from the first node device and storing the node ID information on a storage device located on a second node device.

Cutler's SCS is not equivalent to the applicant's first node. Therefore, Cutler fails to describe or suggest retrieving node ID information identifying a first node device.

Referring to claim 10...

Claim 10 is patentable for at least the same reasons as claim 9.

**Referring to claim 17: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (CSC) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed second node device. The node information stored in the routing table is the claimed node ID information for a third node device. The node receiving the SCS's routing table is the claimed first node.**

**The SCS's communication network address is the claimed determining node ID information of the second node device. The communication protocol between the routing table receiving node and the SCS is a protocol between the first node and the second node. Since the first node/receiving node has to recognize the 2nd node/CSC in order to establish the connection and to receive the routing table, the first node/receiving node's means to recognize the 2nd node/CSC is the claimed storing the second node device's node ID information on the first node device's storage device. The routing table includes other nodes' ID information; when the first node retrieves the routing table from the second node, it retrieves the node information for a third node. Both of**

**Cutler's first node and third node are connecting to the SCS, which is the second node. Hence, claim is anticipated by Cutler.**

Claim 17 includes similar limitations to claim 1 and is patentable for at least similar reasons as claim 1.

**Referring to claim 20: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed second node device. The node information stored in the routing table is the claimed node ID information for a third node device. The node receiving the SCS's routing table is the claimed first node.**

**The SCS's communication network address is the claimed determining node ID information of the second node device. The communication protocol between the routing table receiving node and the CSC is a protocol between the first node and the second node. Since the first node/receiving node has to recognize the 2nd node/CSC in order to establish the connection and to receive the routing table, the first node/receiving node's means to recognize the 2nd node/CSC is the claimed storing the second node device's node ID information on the first node device's storage device. The routing table includes other nodes' ID information; when the first node retrieves the routing table from the second node, it retrieves the node information for a third node. Both of Cutler's first node and third node are connecting to the SCS, which is the second node. Hence, claim is anticipated by Cutler.**

Claim 20 includes similar limitations to claim 1 and is patentable for at least similar reasons as claim 1.

**Referring to claim 23: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed second node device. The node information stored in the routing table is the claimed node ID information for a third node device. The node receiving the SCS's routing table is the claimed first node.**

**The SCS's communication network address is the claimed determining node ID information of the second node device. The communication protocol between the routing table receiving node and the CSC is a protocol between the first node and the second node. Since the first node/receiving node has to recognize the 2<sup>nd</sup> node/CSC in order to establish the connection and to receive the routing table, the first node/receiving node's means to recognize the 2<sup>nd</sup> node/CSC is the claimed storing the second node device's node ID information on the first node device's storage device. The routing table includes other nodes' ID**

information; when the first node retrieves the routing table from the second node, it retrieves the node information for a third node. Both of Cutler's first node and third node are connecting to the SCS, which is the second node. Hence, claim is anticipated by Cutler.

Claim 23 includes similar limitations to claim 1 and is patentable for at least similar reasons as claim 1.

Referring to claim 24...

Claim 24 is patentable for at least the same reasons as claim 23.

Referring to claim 25: Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed first storage device, and the SCS is equivalent to the claimed first node device. The node information stored in the routing table is the claimed node ID information. The node receiving the SCS's routing table is the claimed second node. The second node's copy of the routing table is the claimed storing the node ID information on a storage device located on a second node device. Hence, claim is anticipated by Cutler.

Claim 25 includes similar limitations to claim 9 and is patentable for at least similar reasons as claim 9.

Referring to claim 26...

Claim 26 is patentable for at least the same reasons as claim 25.

***Claim Rejections - 35 USC §103***

Referring to claim 6...

Referring to claim 7...

Referring to claim 8...

Referring to claim 11...

Referring to claim 12...

Referring to claim 13...

Referring to claim 14...

Referring to claim 16...

Referring to claim 18...

Referring to claims 19 and 21-22...

Claims 6-8, 11-14, 16, 18, 19, and 21-22 are patentable for at least the same reasons as claims on which they depend.

9. Claims 27-30 are rejected under 35 U. S. C. 103(a) as being unpatentable over the combination of Khare et al. (U. S. Patent No. 6,487,643) and Cutler.

Referring to claim 27: Khare discloses a multi-port switch (figure 1, structure 140) containing a plurality of ports, I/O hub controller connected to one of said ports (figure 1, structure 151), a scalable node controller connected to one of said ports (figure 1, structures 110, 120, and 130), and at least one microprocessor (figure 1, structures 111 and 112) connected to said scalable node controller. Khare discloses that each node/device is known to have its own ID for transmitting data properly (column 5, line 11), but Khare does not explicitly teach the node ID discovery process and the switch's storage device containing the node ID information for the hub controller. Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4), and Cutler discloses that it would be obvious to one of skill in the art to adapt his invention to any communication links (column 3, lines 15-19). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS 's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed multi-port switch. The node information stored in the routing table is the claimed node ID information for an I/O hub controller. The node receiving the SCS 's routing table is equivalent to the claimed scalable node controller. Cutler discloses that each node stores the node ID of other neighboring nodes on its own routing table (column 1, lines 44-47, column 3, lines 42-46), which includes both the I/O hub controller and the switch. The storage means for the routing table is the claimed storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to combine Cutler's teaching onto the Khare because Cutler teaches a way to balance the traffic loads and to differentially route a data packet based on its type (Cutler, column 2, lines 22-26), and Cutler teaches that it would be obvious to one of skill in the art to adapt his invention to any communication links.

The examiner states that "Khare does not explicitly teach the node ID discovery process" and relies on Cutler to teach the node ID discovery process. As described above, Cutler's SCS is not equivalent to the applicant's first node. Therefore, Cutler fails to describe or suggest a "node ID storage process for storing said node ID information identifying said multi-port switch on a storage device located on said scalable node controller."

Referring to claim 28...

Claim 28 is patentable for at least the same reasons as claim 27.

Referring to claim 29: Khare discloses a multi-port switch (figure 1, structure 140) containing a plurality of ports, I/O hub controller connected to one of said ports (figure 1, structure 151), a scalable node controller connected to one of said ports (figure 1, structures 110, 120, and

130), and at least one microprocessor (figure 1, structures 111 and 112) connected to said scalable node controller. Khare discloses that each node/device is known to have its own ID for transmitting data properly (column 5, line 11), but Khare does not explicitly teach the node ID discovery process and the switch's storage device containing the node ID information for the hub controller.

Cutler discloses a communication multiple node system (figures 1 and 3) routing table with node ID (figure 4), and. Cutler discloses that it would be obvious to one of skill in the art to adapt his invention to any communication links (column 3, lines 15-19). Cutler discloses a System Control System (SCS) for providing routing table for each node (column 4, lines 17-20). The SCS's routing table is equivalent to the claimed storage device, and the SCS is equivalent to the claimed multi-port switch. The node information stored in the routing table is the claimed node ID information for an I/O hub controller. The node receiving the SCS's routing table is equivalent to the claimed scalable node controller. Cutler discloses that each node stores the node ID of other neighboring nodes on its own routing table (column 1, lines 44-47, column 3, lines 42-46), which includes both the I/O hub controller and the switch. The storage means for the routing table is the claimed storage device.

Hence, it would have been obvious to one having ordinary skill in the computer art to combine Cutler's teaching onto the Khare because Cutler teaches a way to balance the traffic loads and to differentially route a data packet based on its type (Cutler, column 2, lines 22-26), and Cutler teaches that it would be obvious to one of skill in the art to adapt his invention to any communication links.

Claim 29 includes similar limitations to claim 9 and is patentable for at least similar reasons as claim 9.

Referring to claim 30...

Claim 30 is patentable for at least the same reasons as claim 29.

The fact that the applicant has addressed certain positions of the examiner in this response should not be construed as a concession with respect to any other positions of the examiner. The fact that the applicants have made certain arguments for the patentability of certain claims should not be construed as a concession by the applicant that there are not other good reasons for the patentability of those claims or other claims.

The applicant asks that all claims be allowed.

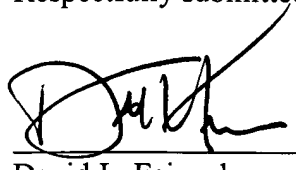
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Respectfully submitted,

Date: \_\_\_\_\_

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